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THE NORTH AMERICAN BIRD CONSERVATION INITIATIVE IN THE UNITED STATES:

A Vision of American Bird Conservation

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Interim U.S. Steering Committee
North American Bird Conservation Initiative

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INTRODUCTION

Birds. Their capacity for flight has always captured the imagination and been the envy of earth-bound humans. It also explains the widespread distribution of birds, a characteristic shared by humans and which further strengthens our truly unique relationship with birds. Why do people thrill to the sight of the first robin of the spring, a flock of wild turkeys, or a solitary bald eagle effortlessly gliding over a lakeshore? How many people have paused as they raked leaves in the fall to over reflect on the wonders of migration at they watched and listened to a flock of ducks or geese overhead, traveling south ahead of a cold front? How many families, camped in the woods, perhaps beside a lake, have listened thoughtfully as whip-poor-wills or loons or owls called in the darkness? How many sunbathers have peacefully watched pelicans skim the surf, or smiled at shorebirds racing up and down the beach at the edge of the waves? How many of us have been struck by the fragility of life, and felt some sadness at finding the lifeless form of a small bird which failed to comprehend "window"?

Among all wildlife, birds have this unique relationship with humans, both at individual and societal levels. Birds have the capacity to touch us in ways that other wildlife do not. Because of the unique status of birds in our society, and their unique life history traits, there is a great sense of urgency and importance in striving to ensure their conservation. Fortunately, this status allows bird conservation to help serve as an "umbrella" for conservation of all wildlife and natural resources within a much broader perspective. Thus, the ***vision of protecting and restoring the populations and habitats of North America's birds*** demands, and deserves, special emphasis among conservation efforts, and the time is *now.*

Values of Birds:

The level of participation by Americans in bird-related recreation is a strong indicator of their value to society. Nature-based recreation is the fastest growing segment of the tourism industry, increasing approximately 30% annually since 1987. Seventy-seven percent of Americans (160 million) spent $29.2 billion in 1996 (39% more than 1991) to observe, photograph or feed wildlife. If wildlife-watching were a corporation, it would have ranked 23rd on the *Fortune 500* list.

A high proportion of nature-based tourism includes birds. Birding is growing faster than biking, pleasure walking, skiing and golf among outdoor recreation activities, increasing 200% from 21 million participants in 1982-83 to an estimated 63 million in 1997. Approximately $20 billion/year are spent on seed, travel and paraphernalia by

birders. An active group, 24.7 million people took trips away from home to participate in birding, spending $5.2 billion in goods and services in 1991.

The number of significant birding festivals across the nation soared from five to 160 between 1985 and 1997. The Texas Rio Grande Birding Festival in 1994 generated $266,000 for the local economy; this exploded to $1.6 million only two years later. In fact, birding tourism in the Lower Rio Grande Valley of Texas now exceeds the area's annual citrus industry revenue. Similarly, the Delaware Bay shore and Cape May peninsula of New Jersey realize more than $40 million annually from birders. At a national level, economic activity directly associated with non-consumptive enjoyment of birds generated 191,000 jobs and more than $895 million in sales and income tax revenues in 1991. In addition, 3 million migratory bird hunters generated $1.3 billion in retail sales, with a total economic multiplier effect of $3.9 billion, associated with 46,000 additional jobs and sales and income tax revenues of $176 million.

These examples illustrate the actual and potential economic *benefits* of birds and their conservation. However, there are other important economic *costs* of failing to conserve birds. If bird populations decline to the level of being threatened or endangered, costs for their conservation escalate dramatically. For example, in 1995, $18.5 million was spent on the conservation and recovery of the northern spotted owl, with $15.7 million, $8.3 million and $6.4 million spent on the marbled murrelet, red-cockaded woodpecker and bald eagle, respectively.

Birds are integral parts of our landscapes, providing important, sometimes irreplaceable functions which would carry tremendous costs to society if they were lost or diminished. Birds pollinate plants, disperse seeds, are critical links in the food web, and play a significant role in insect pest control. Insects and pathogens cause greater forest losses than any other cause, including fire. One study documented that insect-eating forest birds reduced by half the number of insects on white oak saplings, enhancing tree growth and resulting in approximately 17% greater biomass production. With a projected loss of 28 million acres of forest land and an estimated 40% increase in consumption of wood by 2040, the Nation can ill afford lost productivity resulting from declining populations of insect-eating forest birds in our remaining forest lands.

Urgency and Need:

Let there be no misunderstanding; there is a genuine urgency to address our bird conservation responsibilities. Between 1600 and 1900, 75 species of birds and mammals became extinct; 75 more, approximately one/year, disappeared from the planet between 1900 and 1980. Current rates have increased to roughly two/year. There are approximately 85 bird species on the U.S. Fish and Wildlife Service's threatened and endangered list, carrying a high economic cost.

Populations of many once common birds are gradually shifting toward scarcity while other species, such as the double-crested cormorant, lesser snow goose, and giant Canada goose, have adapted perhaps too well to our altered environment. Addressing both scarcity and overabundance are significant challenges for bird conservation today.

An expression of the current vision of bird conservation is to "keep common birds common." Perhaps the most startling concern and urgency involve well-known species that are slipping, gradually, almost unnoticed, out of the ranks of the common and into scarcity. Cerulean warblers have declined an average of 4.2%/year, an alarming 75% during this same period. Similarly striking declines have been documented in the olive-sided flycatcher, king rail, loggerhead shrike, painted bunting, and black tern (-60 to -70%); ruffed grouse, eastern meadowlark, northern bobwhite, and American bittern (-50 to –58%); and, ring-necked pheasant (-25%). Even some common birds are becoming less so. For example, how many people realize that since 1966 the American robin, American goldfinch and whip-poor-will have declined approximately 20% (0.8%/yr)?

Unfortunately, these examples are not unique or isolated. Long-term radar records show that only half as many waves of migratory birds passed over the Louisiana Gulf coast in the late 1980's compared to the 1960's. Among species highly associated with grasslands, only two have increased since 1966; ten have declined significantly, and 13 have declining trends. Over the last quarter century, 18 of the 24 species of shorebirds for which data are available showed significant declines.

Birds that migrate to the Neotropics during the winter comprise up to 80% of the species nesting in eastern deciduous forests. Eighty percent of these are the insectivores so important to forest health and productivity. Between 1978 and 1987, 71% of these species declined, 45% significantly. Over the last 30 years, 8 of 19 forest breeding species in the Blue Ridge Mountains and 13 of 44 in the Adirondacks have declined. Of the 417 species monitored by the Breeding Bird Survey since 1966, approximately 50% exhibit long-term declining trends.

Despite the tremendous success of the North American Waterfowl Management Plan, even among waterfowl some species have defied conservation efforts and remain at depressed levels. Although not uncommon, pintail and scaup, once among the most abundant waterfowl species, have not responded to favorable habitat conditions and management actions as strongly as other species.

The urgency to address bird conservation is further illustrated in the example of the piping plover, listed as endangered in 1985. If the current decline of 7%/year continues, the piping plover will be extinct in about 80 years. The objective for the Great Plains population of this bird is 2,550 pairs. If management actions reverse the population trend and foster a 1% annual increase, the species would reach the delisting target population in 53 years. However, a delay of only 1 year in reversing that population trend results in a delay of 13 years in reaching the recovery level; a delay of 5 years delays attainment of the

objective by 63 years. Thus, the biological realities of addressing the dramatic, long-term declines of many bird populations, coupled with the societal and economic incentives for their conservation, clearly demonstrate the urgency to adequately address bird conservation.

One of the most common bird-based metaphors is “a canary in a coal mine.” It was once a common practice for miners to take canaries into the mines with them to serve as living “alarms” of environmental danger, i.e., poisonous gases. Being more sensitive to these gases than humans, dying canaries warned miners to get out before they too were overcome by the invisible gases. In the simple “ecosystem” of a coal mine, composed of only rock, air, miners and canaries, an “environmental challenge” such as poisonous gas can rapidly and obviously upset the entire ecosystem. Many believe that birds in our natural ecosystems are serving as present-day “canaries in the coal mine.” Although the complexities and subtleties of natural ecosystems generally preclude anything as obvious as a dead canary in a cage, the declines in many of our bird populations may be warning us of environmental challenges that also bear danger for society and our quality of life if not addressed.

Opportunity:

Tremendous potential exists to improve bird conservation, meaning all aspects of protection, restoration and enhancement, in the United States. We are experiencing an unprecedented period of economic prosperity. There are many strong existing partnerships upon which to build, and new ones are forming to plan and implement bird conservation throughout North America. We have excellent models from which to learn.

For example, restoration of the bald eagle has been a highly successful bird conservation effort using the single-species approach. Cooperative management between federal and state agencies and private conservation organizations resulted in their proposed removal from the endangered species list. Applying a more integrated ecosystem approach, the North American Waterfowl Management Plan (NAWMP) is pre-eminent among successful bird conservation models. Since 1986, its implementation has helped increase many waterfowl populations. Most importantly, it institutionalized “partnerships” as the *best* avenue to successful wildlife resource conservation. State and federal agencies long had been partners in managing waterfowl populations, but the NAWMP provided clear goals and structure to that partnership to conserve wetland habitats. It explicitly brought the private sector into the partnership, most prominently exemplified by Ducks Unlimited (DU). Serving as a catalyst, DU worked with the agencies to successfully establish public policy and solicit the voluntary, but very active involvement of private landowners and other private entities across the continent. The focus of the NAWMP partnerships on protection, restoration and enhancement of wetlands and waterfowl habitats has demonstrated the success of a landscape approach to bird conservation. These efforts also have clearly demonstrated that a habitat focus provides benefits to many species beyond those targeted, and that an ecosystem, or landscape,

approach attracts a broader array of partners. The North American Wetlands Conservation Act has been a critical catalyst in illustrating the viability of these conservation approaches, and successfully putting them to work across the national landscape.

The greatest opportunity we have are the expanding partnerships designed to conduct fully integrated bird conservation. State and federal agencies and non-governmental organizations have been working together over the last decade to plan and implement the future of bird conservation with an eye on integrating these efforts. Grassroots support among the public for addressing the needs of all wildlife is growing, evidenced by the support that Partners in Flight and other bird initiatives has achieved and in the breadth of the Teaming With Wildlife coalition. All indications are that this support will continue to increase dramatically.

It is evident from examples such as waterfowl and the bald eagle that, once brought to the Nation's attention, support for conservation is broad and deep. The message is clear: birds are important to the American people, and their populations should not be allowed to decline further but should be maintained and restored. The stage is now set to move beyond conservation targeted on a few high profile species, or even focused on a group of species and their habitats. Clearly, we are on the threshold of a new era of bird conservation, and we must seize this opportunity.

Statement of Purpose:

In 1962, four years before the initiation of the Breeding Bird Survey, Rachel Carson elevated the issue of declining bird populations within the national consciousness with publication of *Silent Spring*. She was among the first to sound the alarm, in a way that resonated with the public, on behalf of bird conservation. Nevertheless, despite some notable successes, many bird populations continue to decline.

Carson dedicated her book to Albert Schweitzer, citing his quote: *"Man has lost the capacity to foresee and to forestall. He will end by destroying the earth."* With all due respect to Dr. Schweitzer and Ms. Carson, we live in a different time, with more reason for cautious optimism. Solutions to the problems confronting bird conservation have begun to be "foreseen," although the broad-based commitment necessary to reverse the declines has yet to be fully garnered. We have even begun to "forestall" some of the problems, but only on a limited basis and for a minority of bird species.

Bird conservation stands at the edge of a major advancement. This document is not intended to be the "plan" or "blueprint" for bird conservation. Rather, it portrays a vision for the future of bird conservation, and lays out a fundamental process that may be used to "take bird conservation to the next level" across North America. In doing so, *its primary purposes are to help: (1) broaden bird conservation partnerships; (2) increase financial*

resources available for bird conservation in the U.S.; and, (3) enhance the effectiveness of those resources and partnerships by facilitating integrated bird conservation.

VISION, GOAL AND PRINCIPLES

Vision:

The ***Vision*** of the North American Bird Conservation Initiative in the United States (NABCI-US) is straightforward:

> ***"Populations and habitats of North America's birds protected, restored or enhanced through coordinated efforts at international, national, regional, state and local levels, guided by sound science and effective management."***

The focus of this document is bird conservation in the United States. However, most bird species in the U.S. are migratory and many have a continental, even hemispheric geographic distribution. These characteristics require coordinated conservation efforts at an international level. Integrated delivery of the U.S. initiative (NABCI-US) with and through the North American Bird Conservation Initiative (NABCI) is necessary for successful accomplishment of this vision.

Goal:

The ***Goal*** of the Initiative is:

> ***"To deliver the full spectrum of bird conservation through regionally-based, biologically-driven, landscape-oriented partnerships."***

Principles:

This Initiative will be guided by ***Principles,*** which establish an operational framework and sideboards within which the Initiative and its partners will conduct integrated bird conservation in the U. S. These principles address the fundamental components of the Initiative's goal to: ***"deliver the full spectrum of bird conservation through regionally-based, biologically-driven, landscape-oriented partnerships."***

"… deliver the full spectrum of bird conservation …"

- **There are federal legislative and treaty obligations, as well as state mandates, for the conservation and management of birds.**

- **The NABCI-US will respect the identity and autonomy of each individual bird initiative, e.g., North American Waterfowl Management Plan, Partners in Flight, U.S. Shorebird Conservation Plan, North American Colonial Waterbird Conservation Plan.**

- **Financial resources necessary for comprehensive bird conservation in the U.S. can be marshaled more effectively by a broad, robust coalition of bird interests than by individual efforts of separate initiatives.**

- **Financial resources marshaled for bird conservation can be used more effectively when management needs and actions are integrated across landscapes, providing the greatest benefit for a broad array of species rather than being narrowly focused.**

The Migratory Bird Treaty with Canada (1916) and Mexico (1936) has been the world's most enduring international conservation agreement. The Treaty and its implementing Act grant ultimate responsibility for safeguarding and managing migratory birds in the U.S. to the federal government. However, state wildlife conservation agencies have long been partners in this effort, having sought and accepted a shared responsibility for management of these species. Conversely, authority for resident bird species remains with the states, although the federal government in various ways has been a partner in their conservation. In addition, both migratory and resident bird species and their habitats are the focus of numerous private, non-governmental organizations representing millions of members. Finally, private landowners, through individual action and voluntary, incentive-based conservation programs, have contributed significantly to bird conservation.

Not long ago, "migratory bird conservation" was almost synonymous with waterfowl and migratory game bird management. With the phenomenal growth of outdoor recreation involving nongame birds and documentation of long-term declines of many of these bird species, interest among the public, scientists and managers has increased dramatically. The concern generated by this interest is reflected in the growing number of individual initiatives and organizations with a central bird conservation mission. Understanding that Federal and State wildlife agencies are mandated to conserve *all* native birds, future bird conservation demands attention to the full array of species.

"… through regionally-based, …"

- **The NABCI-US will promote comprehensive bird conservation based on the similarities within geographic regions regarding habitat types, ecosystem components, management issues, and successful conservation approaches.**

- **A common ecological framework is essential to efficient planning, implementation and evaluation processes for delivering the full spectrum of bird conservation.**

- **Organization of regional partnerships to deliver bird conservation will be based on a sound ecologic framework and practical administrative and economic considerations defined by partners.**

Regionally-based partnerships are essential for effective delivery of integrated bird conservation. Various groups of birds often share habitats and conservation challenges. Similarities in land use patterns and natural ecosystems exist within identifiable geographic regions of the U.S., and provide a logical framework for bird conservation. In addition, the people, communities and organizations within regions work together more readily in partnerships because of common concerns and opportunities. These similarities provide opportunity to organize partnerships to deliver management within geographically identified bird conservation regions.

"… biologically-driven, …"

- **The NABCI-US will be based on the best available scientific information.**

- **An adaptive approach to bird conservation is necessary to build our knowledge in concert with our management actions.**

- **Effective conservation of bird populations and habitats depends on an understanding of the responses of populations to habitat alterations and management actions, and is driven by linkages between population and habitat objectives.**

Waterfowl have been the focus of research for more than 50 years, yet significant deficiencies in knowledge still exist. Major information gaps prevail regarding population biology and management of many bird species. Monitoring bird populations is a necessary first step in focusing conservation efforts. In addition, scientific information relating habitat alteration and management actions to changes in bird populations is essential to measure effectiveness and refine management actions. The Initiative must be science-based to most effectively use financial resources dedicated to bird conservation.

"… landscape-oriented …"

- **Bird populations respond to landscape-level change.**

- **Bird conservation objectives should be incorporated into existing natural resource practices and programs as much as possible.**

- **The Initiative will promote sustainable land use and management practices most compatible with bird conservation.**

Birds exist within landscapes serving a variety of purposes. Incorporating greenspace into urban and suburban development will play a role in the future of bird conservation. Agricultural practices and federal farm policies exert direct and important effects on bird conservation because of agriculture's dominance in many landscapes. Management of private and public forests affects landscapes at regional scales. A landscape approach allows successful integration of bird conservation into sustainable land use patterns helping to meet sociological needs of today and the future.

"… partnerships."

- **Effective bird conservation depends on cooperation of agencies and organizations at international, national, state, regional and local geographic scales.**

- **The Initiative will build and strengthen diverse and multiple linkages among public agencies, private organizations, landowners and individuals at all geographic levels of conservation delivery.**

- **Bird conservation efforts will include a broad array of options with primary emphasis on policies that provide for voluntary stewardship approaches.**

- **Bird conservation partners will identify and resolve potential conflicts among priority bird conservation needs within geographic area.**

The single most important component of bird conservation is ***"partnerships."*** In any cooperative venture, each partner, federal, state, NGO or individual, must come to the table voluntarily, bringing resources it willingly shares to achieve common objectives. Successful partnerships understand and respect the independent missions of each partner, and seek the common ground leading to management actions that result in the most efficient use of resources. Because of legislative mandates, the federal government must take the lead in providing the basic resources required for integrated bird conservation, but it must seek a broad partnership among the states, NGOs, and private citizens. *Successful conservation*

partnership models, e.g., the North American Waterfowl Management Plan and North American Wetlands Conservation Act, show the way, providing a working foundation upon which to build broader, deeper partnerships acting on behalf of bird conservation in the U.S.

HISTORY AND STATUS OF BIRD CONSERVATION IN THE U.S.

Background

The surge of interest in birds has spurred the maturation and development of several unprecedented bird conservation initiatives. These include the North American Waterfowl Management Plan, Partners in Flight, the United States Shorebird Conservation Plan, and the North American Colonial Waterbird Conservation Plan. The North American Bird Conservation Initiative is facilitating linkages among these individual initiatives, both within the United States and among the United States, Mexico, and Canada. A brief review of the evolution of bird conservation in the U.S. provides important perspective regarding the trajectory of bird conservation today.

Bird conservation in the United States is rooted in history, public attitudes, and landscape protection. Designation in 1903 of the first National Wildlife Refuge, an 8-acre island off the coast of Florida, marked an important point in the history of bird conservation. The Pelican Island NWR was established to protect pelicans and other colonial nesting birds from the excesses of the millinery trade. By this time, it had become clear that unregulated market hunting, the harvest of wildlife for profit, was a significant threat to birds. State and federal agencies responded with laws regulating hunting and initiated biological studies to learn more about bird population dynamics. Internationally, the 1916 and 1936 Migratory Bird Conventions and 1918 Migratory Bird Treaty Act regulated the take of migratory birds and made their protection a responsibility of the federal governments. A strong tradition of international cooperation in waterfowl population surveys and harvest management followed.

As human use of the continent intensified, so did loss of and adverse impacts on bird habitats. In response, federal and state governments accelerated acquisition and management of the most critical habitats. Waterfowl was a major focus, particularly for the NWR system. State land acquisitions often focused on game species because the primary source of funding for the efforts was from hunters and anglers. Later, endangered species and other migratory birds gained more prominence in prioritizing conservation of public lands.

Now, at the cusp of the 21st century and with populations of many birds still declining, more effective solutions are needed. The four individual bird conservation initiatives in the United States, and the comprehensive, international focus of NABCI, arose out of recognition that effective bird conservation requires:

- *a stronger scientific understanding of birds, their habitats, and population phenomena;*
- *conservation and management at local, landscape, continental, and hemispheric scales; and,*
- *involvement of all of the elements of human society that affect and are affected by changes in bird populations.*

The North American Waterfowl Management Plan

In 1986, the United States and Canada signed the North American Waterfowl Management Plan (joined by Mexico in 1994) and migratory bird conservation entered a new phase. This international agreement challenged conservationists in North America to restore waterfowl populations to 1970's levels. Most importantly, it directed that this be done by creating sustainable *landscapes* for waterfowl using unprecedented *partnerships* among the federal, state and private sectors. Many factors contributed to the success of the Plan, but a focused and organized constituency is the key to its success. This constituency facilitated the passage of the 1989 North American Wetlands Conservation Act, the primary funding tool for habitat conservation under the Plan.

Over the last decade, Plan partners have created a highly successful model for delivering conservation: regional "joint venture" partnerships delivering biologically-based habitat conservation in landscapes important to waterfowl. Each of the ten U.S. Habitat Joint Ventures is guided by an implementation plan laying out measurable population targets and corresponding habitat objectives. Population targets are linked to continental population goals expressed in the Plan.

More than 4.3 million acres of wetlands and associated upland habitats, at an investment of over $1.1 billion, have been conserved in the U.S. under NAWMP. These efforts, and those of other wildlife and agricultural conservation policies and programs, have contributed significantly to the rebound of most waterfowl species. However, the work of waterfowl conservation is not done. Increased demands for natural resources from a growing human population and the certain return to below average water conditions in breeding areas will depress waterfowl populations again in the future. Furthermore, several species, including sea ducks, are still too poorly monitored to adequately assess their status but are suspected to be declining.

Plan partners are faced with the challenge of carrying waterfowl conservation's tremendous momentum into the next century. Their conservation efforts must be woven into the rapidly changing and more complex social, economic, and environmental fabric of the 21st century. Trends point to increased urbanization, a declining proportion of hunters, increasing numbers of birdwatchers, increasing demands for grain, and global climate

change. Plan partners are working to respond to management implications of these trends, and to strengthen the biological foundation of waterfowl conservation.

Partners In Flight

Partners In Flight (PIF) is a consortium of public and private organizations and individuals working voluntarily to conserve migratory landbirds throughout the Western Hemisphere. PIF's guiding principles are to restore populations of the most imperiled species and to prevent other birds from becoming endangered – "to keep common birds common." Because landbirds are diffusely spread across every habitat type on the continent, PIF may face the most complex challenges among the bird initiatives. Populations of landbirds that can adapt to the dominating human presence on the land are thriving, while many less adaptable species are declining. Identifying precise causes of decline is difficult, particularly for migratory species that depend on several habitat types during an annual cycle. Problems facing landbirds often stem from land use driven by societal needs for food, fiber and living space. Thus, landbird conservation requires a strong commitment to research and monitoring, and an even more fundamental commitment to developing alliances with people who own, manage, and make decisions about land. Strengthening the link between science and bird conservation lies at the core of the PIF philosophy.

A comprehensive set of regional Bird Conservation Plans for the continental U.S. will be completed by 2000. These plans are based upon a species prioritization resulting in a list of landbirds of each region, grouped by shared habitats, that require conservation attention. Conditions of priority habitats are then assessed, and management recommendations thereafter directed at habitats, not at individual bird species. Plans strive to present scientifically credible, yet realistic population and habitat objectives, considering current ecological conditions and social and economic realities. With these regional plans, PIF is contributing significantly to more strategic, comprehensive, and effective bird conservation.

Over the past decade, Partners In Flight's network of thousands of partners has been involved in a diversity of proactive conservation activities, including research and monitoring, habitat management and restoration, technical assistance to federal agencies and other landowners, policy development and advocacy, and outreach and education. PIF has worked at all geographic levels and throughout the Western Hemisphere. However, to be most effective, their activities need to be part of a larger, integrated strategy of bird conservation delivery at all spatial scales.

United States Shorebird Conservation Plan

Shorebirds are among the most amazing migratory birds, generally traveling the longest distances and being on the move the greatest amount of time each year. They generally "follow the sun," tracking bursts of food resources as they become available, pausing briefly to breed at the northern end of their route before heading south again. Many species concentrate at a series of critical stopover sites stretched from the Arctic Ocean to the tip of South America, and their natural history is so distinctive that novel conservation actions are needed.

Most shorebirds depend on wetlands for all or much of their life cycles. Habitat loss and various types of degradation, such as human disturbance, pollution, food depletion, and increasing threats from predators, are the main pressures affecting shorebird population declines. Without remedial conservation efforts, these pressures can be expected to increase in the future. Focused conservation action and integrated management practices are needed to prevent additional shorebird species from becoming threatened or endangered.

The Western Hemisphere Shorebird Reserve Network (WHSRN) was founded in 1986 to identify and encourage protection of the most important stopover and wintering sites in North and South America. This and other conservation efforts in the U.S. and internationally have been very successful at protecting some of the most critical sites, and raising awareness of the special requirements of shorebirds. However, these efforts have been insufficient to secure stable or increasing populations of many species. Ongoing conservation challenges have highlighted the need for comprehensive planning to address critical aspects of shorebird life history.

The United States Shorebird Conservation Plan (USSCP) was initiated in 1996 to address this need. The USSCP is a partnership effort designed to ensure that populations of all shorebird species are protected or restored to a healthy condition. The shorebird plan, expected to be completed by 2000, will lay out conservation goals for each of twelve shorebird management regions of the U.S., identify critical habitat conservation and key research needs, and propose education and outreach programs to increase awareness of shorebirds and their unique needs. Fortunately, many shorebird conservation needs are compatible with those of waterfowl. The natural synergy developing between the USSCP and the NAWMP is beneficial for both groups of species. In addition, because many shorebirds use upland habitats for nesting or foraging, objectives of the USSCP are also being aligned with those being developed by Partners in Flight, further contributing to the integration of bird conservation needs.

North American Colonial Waterbird Conservation Plan

The newest bird conservation initiative is addressing the needs of colonial waterbirds. This group includes a broad array of bird species, including herons and egrets, gulls and terns, and many seabirds. As with waterfowl and shorebirds, protection or restoration of aquatic and wetland habitat is needed for many species. Many others forage along shorelines and in the open ocean, where problems including pollution and

conflicts with recreation and fisheries must be addressed. Some species, such as the double-breasted cormorant, are overabundant, posing unique challenges to population management. The conservation needs of these birds must be addressed on a large geographic scale because of the distribution of colonial waterbirds, with some breeding in the United States and Canada and wintering as far south as Mexico or the Caribbean. Maintaining North American populations at appropriate levels, therefore, depends on planning, inventory, monitoring, and management action on an international and continental scale.

The weak link in the life cycle of all of these birds, however, is their propensity to nest in colonies. Loss of a colony can mean loss of a local population or, in a few cases, extinction of a species. Colonies are sensitive to a wide range of human disturbances. However, they are particularly susceptible to new or imbalanced predator populations, e.g., rats and cats on nesting islands and burgeoning gull populations along coastlines.

The North American Colonial Waterbird Conservation Plan began in 1998, following the lead of the others in its reliance on partnerships, strong science, and development of explicit objectives. Components of this plan are focused on research and information needs, monitoring, management, and education and outreach. Like other bird conservation initiatives, this plan is relying on voluntary partnerships. Coordinated with other bird conservation initiatives, the plan will identify regional conservation goals and key habitats, delineate critical research needs, and develop public outreach materials and training programs, with completion anticipated by 2001.

North American Bird Conservation Initiative

The individual bird conservation initiatives have recognized their common bond through the habitats shared by migratory birds. The leaders of each understand that there is not only common ground in the biological landscape, but also significant overlap in the institutional frameworks providing the foundation for delivery of comprehensive, coordinated migratory bird conservation. However, prior to 1998, no effective mechanism for this coordination existed. Furthermore, although the four initiatives deal with most birds, some groups such as rails and other non-colonial waterbirds are not included. Internationally, the North American Waterfowl Management Plan covers the U.S., Canada and Mexico and the Colonial Waterbird Plan addresses all of North and Central America and the Caribbean, but Partners in Flight and the Shorebird Conservation Plan include only the U.S. No means of dealing consistently with counterparts in other nations exists.

In 1998, the Commission for Environmental Cooperation stimulated increased international cooperation. Participants from Canada, the United States, and Mexico brought into existence the North American Bird Conservation Initiative (NABCI). NABCI does not limit the autonomy and independence of any of its participants, but rather seeks to increase the effectiveness of the separate initiatives by integrating conservation objectives and project implementation. NABCI also is working to increase the resources available for

bird conservation. In short, NABCI and NABCI-US can be a mechanism to facilitate advancement of bird conservation to the "next level." Any success in achieving that end will simply represent the level of desire and commitment of the individual bird conservation initiatives and their partners to work toward a shared vision of effectively and efficiently ***delivering the full spectrum of bird conservation through regionally-based, biologically-driven, landscape-oriented partnerships.***

CONSERVATION APPROACH

Establishing and Refining a Science Foundation

The role of science in bird conservation

Successful conservation must be based on sound science, a precept reflected in the phrase "biologically-driven." To achieve the goal of integrated bird conservation, there must be a solid underlying foundation of scientific knowledge about birds and the threats facing them. This scientific foundation allows bird conservation goals to be stepped down to specific conservation projects necessary to manage birds and their habitats. Science provides the information necessary to effectively identify and address critical conservation needs. Effective conservation demands an understanding of the threats birds face, and the critical life history stages and geographic locations at which populations are limited. However, for most birds, this understanding is insufficient or altogether lacking. Fundamental scientific information must be developed to guide refinement of bird conservation priorities, support the design and development of critical conservation projects, and help measure the effectiveness of our actions toward meeting our goals.

Integrated Planning, Implementation, and Evaluation

Effective conservation requires a dynamic process of strategic planning, project implementation, and evaluation of effectiveness. This process of "adaptive resource management" allows managers and scientists to proceed with critical conservation projects in the face of scientific uncertainty. The process, properly applied, permits us to deliver management actions while simultaneously allowing us to learn from and refine our understanding of the effectiveness of those actions.

The three fundamental components of adaptive resource management are: (1) planning; (2) implementation; and, (3) evaluation.

Planning develops the population and habitat objectives for specific groups of birds. Planning should be initiated by the scientists and managers most familiar with each bird group, their life history needs, and limiting factors. Effective planning also requires consideration of many non-biological factors, such as existing land use, public attitudes,

and budget constraints. Therefore, involvement of top management, the public and decision-makers is crucial.

Implementation delivers the specific conservation projects necessary to protect and conserve bird populations. Implementation is most effectively carried out in an integrated fashion, combining overlapping habitat and management needs of each bird group as part of an overall landscape-level strategy. Integration of bird conservation activities is one of the core principles of this Initiative. Implementation requires the participation of the widest possible range of public and private partners.

Evaluation measures how effectively conservation actions and strategies have achieved overall conservation goals. Although it requires sound scientific information and is critical to ensuring that conservation goals are being achieved, evaluation is not an end in itself and should never become a large proportion of the overall strategy. Evaluation activities include analysis of changes in populations of birds, assessments of habitat quality and availability. It also encompasses targeted studies where critical information is lacking to determine future priorities, and assessments of specific conservation programs. Effective evaluation should increase our understanding of the factors limiting bird populations and how best to address them, and thereby contribute to an iterative process of revision of conservation strategies developed in the planning stage, and carried out during implementation.

Toward Landscape Level Conservation

Shared conservation needs at the landscape level

Managing the conservation of the more than 700 bird species that occur in this country is not practical on a species-by-species basis. Each species may use many different habitats during the year and each habitat type often has unique management challenges. However, at the scale of landscapes, the needs of many different bird species are similar or compatible. Combining management needs for species that use the same types of habitat in the landscape will increase efficiency of management, reduce costs, and increase the effectiveness of specific projects by addressing needs of a variety of birds simultaneously. The same approach, applied not just to bird conservation needs, but to those of other interests, i.e., other wildlife species, agriculture, development, etc., allows planners to define the nature of future landscapes. All of society's interests, including such disparate needs as flood control, public health, or bird conservation, must coexist on our landscapes. A central goal of this initiative is to help build the partnerships that will achieve truly integrated conservation, and design and promote sustainable environments to help meet the needs and desires of future generations.

Forging Broad Partnerships for Bird Conservation

All conservation is ultimately local. The public and private organizations located in each part of the country are most knowledgeable about local conditions, needs and opportunities and are also most empowered by successful conservation activities in their areas. This Initiative adheres to the vision of regionally-based partnerships that build on local knowledge and enthusiasm to deliver conservation activities for all groups of birds.

The Joint Ventures formed to implement the North American Waterfowl Management Plan have provided the most effective model for a public/private conservation partnership that exists today. They have effectively involved federal, state and local governments and a wide range of non-governmental conservation organizations in effective partnerships to deliver conservation on the ground. All Joint Ventures share common characteristics of being dynamic, self-directed partnerships that deliver science-based habitat conservation in a distinct geographic area, consistent with national and international bird conservation plans. The existing Joint Ventures that have already taken steps to embrace the goal of integrated bird conservation provide the first examples of application of the vision outlined in this Initiative. In areas of the country without existing partnerships, additional Joint Ventures will need to form to deliver integrated bird conservation.

INTEGRATED BIRD CONSERVATION

Effective integrated bird conservation requires the maintenance or restoration of landscapes in which the quantity, quality, and diversity of suitable habitats meet the needs of all species. Ecology-based units enable efficient conservation because they encompass landscapes with similar bird communities, similar habitats, and similar land use and resource issues. Conservation partnerships rooted in this context are not new. At their inception, NAWMP Joint Ventures were delineated within ecologically-based focus areas of special significance to waterfowl.

Effective conservation delivery requires linkage of population responses to habitat changes at multiple spatial scales; from the local scale of individual habitat management projects to continental scales at which national and international program planning and evaluation occur. Consequently, issues of scale have been prominent in NABCI efforts to develop a framework of ecologically-based “bird conservation regions” encompassing North America. It was recognized that an ecologically-based delineation of bird conservation units must accommodate varying spatial scales in biological planning and evaluation, and must be flexible enough to accommodate multiple scale-specific approaches to on-the-ground management. Furthermore, any ecological framework must obviously respect political boundaries while facilitating innovative bird conservation within states and provinces and among broader partnerships.

Efforts are progressing toward adoption of a four-level hierarchical framework of nested ecological units as the fundamental geographic basis from which to deliver integrated bird conservation. At each level, these ecoregions encompass areas that are progressively more similar in their biotic (plant communities and wildlife) and abiotic (soils,

drainage patterns, temperature, and annual precipitation) characteristics. Hence, ecoregions at multiple scales may be combined or partitioned in various combinations as necessary to best reflect the distribution and needs of birds, while preserving the integrity of the ecologically-based framework. Furthermore, this ecoregion approach will facilitate coordination among natural resource managers working at different spatial scales or in different geographic regions because the ecoregion building blocks provide common ground.

A set of "bird conservation regions" (BCR's) reflecting current understanding of species distribution, life history requirements, and conservation challenges are presented in a separate document ("A Proposed Framework for Delineating Ecologically-based Planning, Implementation, and Evaluation Units for Cooperative Bird Conservation in the U.S."). The purposes of these BCR's are to:

- facilitate communication among bird conservation initiatives;
- systematically and scientifically apportion the U.S. into conservation units;
- facilitate a regional approach to bird conservation;
- promote new, expanded, or restructured partnerships; and,
- identify overlapping or conflicting conservation priorities.

BCR's are proposed as a single application of the scale-flexible hierarchical ecological framework adopted for integrated bird conservation, not as static or rigid regional units. BCR's may be partitioned into smaller ecological units when finer scale conservation planning, implementation, and evaluation is necessary. Conversely, BCR's may be aggregated to facilitate conservation partnerships throughout the annual range of a group of species, much as the Flyway approach to partnering has been applied in waterfowl management. Finally, they will also facilitate international cooperation in bird conservation because these areas of relatively homogeneous habitats and bird communities traverse natural borders. However, the fundamental principle is that effective, integrated bird conservation can best take place when executed within an ecologically-based geographical context.

RECOMMENDED ACTIONS

This document proposes a framework to help achieve the vision of ***"regionally-based, biologically-driven, landscape-oriented partnerships that deliver the full spectrum of bird conservation across the U.S. and North American continent."***

There is a strong desire within the bird conservation community to lay out the detailed blueprint required to achieve that vision. However, significant information gaps preclude such detail at this time. Although the North American Waterfowl Management Plan has gone through its second update, the national plans of the other bird conservation initiatives are in various stages of progress, with completion not expected until 2001. However, these initiatives, collectively, have identified a number of top priorities necessary

to achieve the vision. As "the blueprint" develops, it is generally agreed that the elements identified below will be fundamental, that their implementation *now* is critical to reversing the long-term decline of many North American bird populations, and that all will contribute directly to the vision.

The recommendations are listed in association with individual elements of the vision although their interrelationships make the division of some recommendations somewhat arbitrary. Because successful bird conservation is dependent upon genuine partnership, including funding, most cost estimates represent the collective contributions of partnerships. While acknowledging that the federal government cannot be expected to assume the primary role of funding bird conservation across the nation and beyond, its unique ability to serve as a *catalyst* for generating partnerships and revenues for conservation action must be recognized and utilized for this initiative to be successful. Literally billions of dollars of economic activity are generated annually by citizens participating in outdoor activities associated with birds. In light of the magnitude and significance of these revenues, the federal government should take a leadership role in directing additional revenues into perpetuation of the bird resources upon these revenues depend, and in challenging the state and private sectors to share in this comprehensive conservation effort.

"Deliver the full spectrum of bird conservation…"

- Increase funding support for the North American Wetlands Conservation Act. NAWCA has been a primary catalyst and delivery mechanism for migratory bird conservation since 1989. It has been a major conservation success, contributing significantly to the effectiveness and maturation of joint venture partnerships developed through the NAWMP. However, many worthy projects involving millions of dollars of non-federal funding commitments go uncompleted each year due to insufficient NAWCA funding. NAWCA has never been appropriated at more than half of its $30M authorization. One of the most immediate steps to more comprehensively address bird conservation needs should be to fully fund ($30M federal: approximately $60M non-federal) the North American Wetlands Conservation Act.

- Pass an analog act to NAWCA to support conservation of upland bird habitats. NAWCA has been a successful model for addressing the needs of wetland habitats for bird conservation. Building upon that model, analogous federal legislation should be passed to address critical upland habitat needs in the U.S. and other countries sharing populations of birds ($30M federal: $60M non-federal). To facilitate efficiency and integrated bird conservation delivery, the existing mechanism of the North American Wetlands Conservation Council should be used as the foundation for this broadened, more inclusive, integrated conservation approach.

- Increase funding, federal and non-federal, for other partner-based habitat conservation programs. Increased support is needed for programs in several federal agencies, e.g.,

FWS's Partners for Fish and Wildlife program, FWS's Coastal program, and Forest Service's Taking Wing program. Increased funding is essential at the state level where much of the nation's habitat conservation is focused. The challenge cost share programs of several federal agencies also serve as effective catalysts for bird conservation delivery. Non-federal:federal funding ratios for these programs typically exceed 2:1. These programs should be expanded to adequately take advantage of the public and private non-federal partners willing and desiring to help fund bird habitat conservation. ($65M federal)

- Fully support ongoing or new management interventions designed to reduce or eliminate bird/human conflicts at all levels. Some species of birds are now "over-abundant" relative to historic population levels and peoples' willingness to accept them. These new circumstances require novel wildlife management approaches. To effectively manage these natural resources, and to maintain support of the public for bird conservation, bird/human conflicts must be effectively addressed through responsible bird population management. ($15M)

"… through regionally-based, biologically driven…"

- Contribute to improved habitat conservation in Western Hemisphere nations sharing U.S. bird populations. Just as bird conservation needs vary across regions of the U.S., needs and successful approaches differ across international borders. However, the U.S. shares many bird populations with other nations, and should partner with them to comprehensively address the full range of habitat and management needs of those shared populations. Funding for federal programs supporting habitat conservation outside the U.S., e.g., NAWCA international projects, Borderlands Program, and FWS's International Affairs Small Grants Program, should be increased to more adequate levels, with appropriate levels of matching non-federal funds. ($17M)

- Develop and implement comprehensive monitoring and assessment capabilities to fully address bird conservation needs. Effective management decisions must be based on sound understanding of the status and trends of bird populations and their relationships to habitats throughout their annual life cycles. Existing monitoring and assessment programs for migratory bird populations should be enhanced, and similar programs for birds for which little or no reliable data are available should be developed. ($18M)

- Cooperatively enhance management capabilities for birds at all geographic scales based on sound science, measurable conservation objectives, and an adaptive process of planning, implementation and evaluation. Evaluation of relationships among habitats, management actions and population responses must be an ongoing activity to refine and integrate bird conservation practices. Capabilities of existing migratory bird research programs should be restored and enhanced, and new programs should be

developed for bird groups having little or no current scientific support. Adaptive ecological models for important breeding, wintering and migratory staging areas for major bird groups should be identified and developed, guided cooperatively by groups such as the FWS/USGS Adaptive Management and Assessment Team. ($19M)

"… landscape-oriented …"

- Strengthen cooperation and funding among land management agencies and land-related regulatory agencies that directly and indirectly affect bird conservation. Actions of federal and state agencies affect bird conservation in important ways. In many cases, however, existing funds for natural resource conservation are not expended as effectively as possible to gain the broadest resource benefits, including birds. Improved coordination within and among many of these agencies could lead to improved bird conservation. A strategic plan for the U.S. Departments of Agriculture and Interior should be developed to enhance funding capabilities and delivery of habitat protection and restoration activities governed by provisions of the Farm Bill, recognizing statutory modifications as appropriate. Due to their impacts on land management, comprehensive and integrated bird conservation commitments and strategies should also be established, in consultation with the Department of Interior, by the U.S. Departments of Transportation, Defense, Energy, the Federal Energy Regulatory Commission, and Environmental Protection Agency. ($8M)

- Fully utilize opportunities of the Farm Bill conservation titles to better address the dual objectives of natural resource conservation (including birds) and sound agricultural policy. No federal or state program has had greater impact on the status of bird populations than the federal Farm Bill. In recent years some of its conservation titles (e.g., Conservation Reserve Program, Wetland Reserve Program) have been tailored to provide significant benefits to birds and natural resource conservation, while at the same time contributing to agricultural policy objectives. Support and delivery of these programs at the state and federal levels should be further refined and adequately funded during the next Farm Bill reauthorization to strengthen its contribution to these dual objectives.

    - Authorize $100 million/year for Wildlife Habitat Incentives Program (WHIP). This entire program authorization is expired, with the previous funding level of $50 having been expended during the first two years of Farm Bill implementation. It contributed significantly to the restoration and management of bird habitats.

    - Increase authorization for the Wetlands Reserve Program (WRP) to two million acres. This program is nearing its current authorization of 975,000 acres. The program has been tremendously successful in restoring significant bird habitat, and also in removing marginal, unproductive lands from an agricultural land use.

- Increase authorization of the Conservation Reserve Program (CRP) to 45 million acres. The current authorization of 36.4 million acres has also almost been attained. This program is one of the most important factors in the rebound of waterfowl populations. In addition, of eight important grassland-dependent non-game bird species in long-term decline prior to CRP, trends of four have since been reversed and are now increasing. The additional 9 million acres which could be placed into conservation usage with an increased cap would result in greater benefits to the full spectrum of grassland birds while providing corollary benefits to the farm economy as intended by the original CRP.

- Create a new Grassland Easement Program. A permanent easement program for the Great Plains is needed to acquire no-plow easements to protect native prairie and restore grassland habitats. With grassland birds clearly declining to a greater degree than any other group of U.S. birds, such a program will be necessary to reverse the trend and successfully conserve their populations.

- Integrate other land-holding entities into the Comprehensive Conservation Planning process for the National Wildlife Refuge System. The Fish and Wildlife Service has been directed by Congress to develop Comprehensive Conservation Plans for all national wildlife refuges within the next 14 years. However, each refuge is embedded within a larger landscape context, including in many cases other significant habitats owned and managed by federal and state agencies. Other federal agencies should be directed to participate and states and NGO's should be afforded the voluntary opportunity to be full participants in this landscape-oriented comprehensive conservation planning. ($15M)

"… partnerships."

- Fully fund the 10 existing bird conservation joint ventures, and support the development of 10-20 new joint venture partnerships. Several North American Waterfowl Management Plan Joint Ventures already have taken steps to be the delivery mechanism for other migratory bird initiatives. To carry out, coordinate, and communicate the regional planning, monitoring, evaluation, and delivery of actions necessary for integrated bird conservation, the 10 existing regional joint ventures should be fully funded. Further, to deliver the integrated conservation actions of all bird conservation initiatives in areas not included in existing joint ventures, 10-20 new joint venture partnerships should be developed. ($25M)

- Conduct cost-effective, integrated delivery of bird conservation on a regional basis. Comprehensive bird conservation joint ventures, from coast-to-coast, are necessary for cost-effective, integrated conservation of bird populations and habitats. This must be facilitated through a coordinated planning process within each bird initiative to step down identified national needs and priorities to regional action plans, and to identify

individual management actions generating the greatest benefits. Although some broadly beneficial programs and management actions can be identified now, regionalization should be accelerated and finalized. ($12M)

- Develop an effective outreach and education program that promotes enhanced wild bird-related recreational and educational opportunities for the American people. The support and participation of the American public as partners in this national and international bird conservation effort is essential. Funding and other resources required to achieve the vision of national bird conservation will not flow without their support. However, rapidly growing participation in bird-related recreational pursuits clearly demonstrates the public's strong collective interest in birds. With the majority of U.S. bird habitats in private ownership, the active, voluntary participation of landowners and the general public in delivering management actions is a cornerstone of successful bird conservation. The support of the American public has been critical to the successes achieved to date, and must be maintained and strengthened through an effective, partner-driven outreach and education program about bird populations, their habitats, and responsible natural resource conservation. ($5M)

ADMINISTRATION

The NABCI-US will initially be led by a steering committee consisting of nine individuals, each representing an organization or initiative critical to the success of bird conservation:

- Co-Chair: Director (or designee), U.S. Fish and Wildlife Service;
- Co-Chair: President (or designee), International Association of Fish and Wildlife Agencies;
- representative of the North American Waterfowl Management Plan;
- representative of Partners in Flight;
- representative of the United States Shorebird Conservation Plan;
- representative of the North American Colonial Waterbird Conservation Plan;
- representative of Ducks Unlimited;
- representative of the Wildlife Management Institute; and,
- representative of the National Flyway Council.

Once established, the NABCI-US Steering Committee will address the issue of additional members to strengthen and broaden representation as needed to help accomplish its goals.

This Steering Committee will function in three general areas:

1. it will represent the United States internationally in the North American Bird Conservation Initiative, appointing three United States representatives to serve on the Tri-national NABCI Steering Committee;

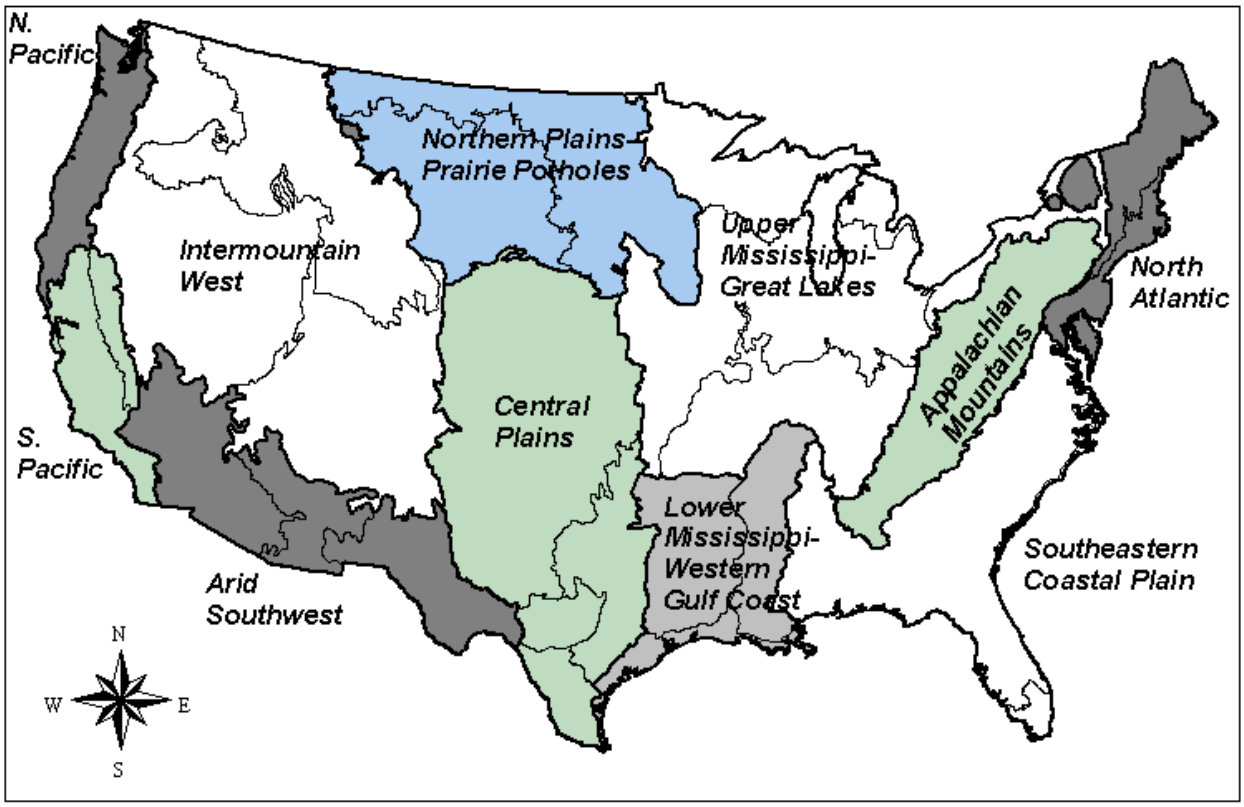
2. it will serve as a forum for interaction among bird conservation initiatives within the United States;

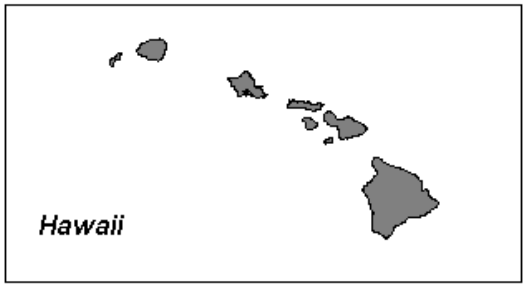
3. it will endeavor to increase the resources available for bird conservation in the United States and North America.

The Steering Committee will be staffed by a National Coordinator. It is also anticipated that additional staff support will be necessary to address the full range of Committee functions and tasks. The composition and structure of this staff support should be developed by the Steering Committee.

APPENDIX A. Aggregated Bird Conservation Regions: An overview of regional bird population and habitat status, and priority conservation programs and actions.

[An information sheet for each of 13 regional groups of Bird Conservation Regions, aggregated for the purposes of this document, are in development. The example of the Lower Mississippi-Western Gulf Coast region is very preliminary and includes inaccuracies, but is included to provide reviewers of this draft document an idea of the type of information proposed to be included and approach used in this appendix. It's primary intention is to further enhance the sense of importance, urgency, priorities and actions needed at the regional level. Each aggregate of BCR's will ultimately be a single sheet, front and back, and will include a map, text, and photo(s).]





Aggregated Bird Conservation Regions of the United States

---------- LOWER MISSISSIPPI-WESTERN GULF COAST ----------

The Bird Conservation Regions of the Lower Mississippi-Western Gulf Coast region are:

- Mississippi Alluvial Valley;
- West Gulf Coastal Plain; and,
- Gulf Coastal Prairies.

Bird Population and Habitat Status: The Central South is the winter destination for large numbers of a wide range of waterbirds. In the summer, it is the breeding area for a diverse, hemispherically-important bird community. The bottomland hardwoods of the Mississippi Alluvial Valley winter most of the continent's mallards. In Arkansas, duck hunting represents an economic benefit of approximately $2M/day, most of it being injected into one of the most economically depressed regions of the nation. These forests are also important breeding habitat for an array of warblers, vireos and other forest birds. However, what was once a 24-million acre bottomland hardwood ecosystem has been reduced by approximately 80%, with the remaining forests being highly fragmented in an agricultural landscape. While much of the remaining forested habitats are in public ownership, the agricultural lands and smaller forested blocks are primarily private.

This flat region of grassland, marsh and agriculture borders the Gulf of Mexico and extends into the rice country of southeast Texas and southwest Louisiana. The area winters millions of ducks, and likely supports the nation's highest numbers of waterfowl harvest and hunters. It is also one of the world's greatest concentration areas for colonial waterbirds such as egrets, herons, and other wading birds, and it provides critical in-transit habitat for migrating shorebirds. The economic benefits of bird-related recreational activities in the Gulf Coastal area are estimated to be $xxxM. Some of the primary challenges faced by bird managers in this region are: management of the remaining coastal prairie wetlands and agricultural areas to be mutually beneficial to farmers and the birds; protection of the "fall-out" habitats on the coast which are critical to the tiny neotropical birds as their first resting area after completing the arduous flight over the Gulf of Mexico; residential and petrochemical resource development of coastal areas; and, continued loss of wetlands to subsidence, sea level rise and shoreline erosion.

[BOTTOMLAND HARDWOOD PHOTOGRAPH]

Habitats of the West Gulf Coastal Plain, including the rolling Coastal Plain and the Ouachita Mountains, are dominated by shortleaf and longleaf pine and pine-hardwood forests. The Coastal Plain has a diverse forest bird community, with the red-cockaded woodpecker being among the highest priorities. Many important narrow bottomland hardwood areas remain along the region's rivers and bayous,

and protection and restoration of these is a high priority for bird conservation in this region. These areas represent nationally significant habitats for many colonial waterbirds, e.g., egrets and night herons. Industrial timber and forest products companies are the dominant landowners, with the primary land use and economic endeavor throughout the region being wood and fiber products. Leasing of land rights for outdoor recreational opportunities is an increasingly important economic force in the region, generating approximately $xxx million annually. The Ouachita Mountains are dominated by shortleaf pine and pine-hardwood forests. The x.x million-acre Ouachita National Forest is the dominant public ownership in the landscape; industrial forest landownership is also important. The landscape is largely forested, and fragmentation is much less an issue here than in other areas of the Central South. Part of the Ozark-Ouachita Highland physiographic complex, the region is currently considered to be an important "source population" for neotropical migrants. A number of large lakes support important wintering areas for bald eagles and other water-dependent birds, and a significant bird-related economy has developed in the region. The principal habitat issues are loss of the bottomland hardwoods which dissect the area, and conversion of pine-hardwood habitats to pine-dominated forests or pine plantations.

[BIRD PHOTOGRAPH HERE]

Priority Conservation Programs and Action Items: The **Wetland Reserve Program** has restored over xxx,000 acres of bottomland hardwood habitats since 199x in these regions. However, an additional xxx,000 acres have been offered by landowners desiring to enroll in this voluntary USDA conservation program, but which await sufficient funding. Other USDA Farm Bill conservation programs, e.g., **Conservation Reserve Program, Wildlife Habitat Incentive Program, and Environmental Quality Incentive Program,** have been highly successful in restoring and enhancing hundreds of thousands of acres of habitat benefiting waterfowl, neotropical birds, waterbirds, and resident game birds such as bobwhite quail, in the region. All voluntary programs relying on willing landowner participation, all require greater levels of program and technical assistance support to capitalize on demonstrated public interest in integrated natural resource conservation in the region. The **North American Wetland Conservation Act** (NAWCA) is another important conservation program here, with over xx,000 acres of wetlands having been protected, restored or enhanced by partners. Similarly, over $xxM of potential projects have been "left on the table" due to NAWCA appropriation levels at less than half of authorization. The Ouachita Mountain region, with the x.x million-acre Ouachita National Forest, could benefit significantly from **strengthened coordination among agencies**. In addition, **enhanced Challenge Cost Share programs** for the Forest Service and Fish and Wildlife Service would provide significant benefits throughout the Central South region, with current demand by willing partners with significant non-federal matching funds far exceeding the available federal funding levels. The p**ine-bluestem ecosystem management** undertaken by the USFS has clearly demonstrated the benefits of an integrated approach for red-cockaded woodpeckers, bobwhite quail, and white-tail deer and should be expanded. Since 198x, the **FWS Partners for Fish and Wildlife Program** has worked with xxx private landowners and assisted them in their conservation management of over xx,xxx acres of bird habitat; and, landowners managing approximately xx,xxx additional acres have expressed their desire to participate if funding becomes available. A **Netropical Migratory Bird Conservation Act** would be anticipated to be a significant incentive for the forest products industry to become a major partner in bird conservation in this region. Additional **Joint Venture support** is required to allow the Lower Mississippi Valley Joint Venture to adequately address the needs of the West Gulf Coastal Plain BCR, and take advantage of the expressed interest of the states involved to plan and implement integrated conservation delivery for not only all migratory birds, but to develop a discrete linkage to the major public and private constituencies associated with bobwhite quail and white-tail deer here.

[PINE-BLUESTEM PHOTOGRAPH]